



Att. No. 124263-1020
UTA No. 013-03 CIP

JFW
Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/822,343
First Named Inventor : Meng Tao
Filing Date : April 12, 2004
Title : SUPPRESSION OF CHEMICAL REACTIVITY ON SEMICONDUCTOR SURFACES
Group Art Unit : 2813
Examiner : Not Yet Assigned
Confirmation No. : 3111

Certificate of Mailing Under 37 CFR 1.8

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INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to the provisions of 37 C.F.R. § 1.97, Applicants hereby make of record the references set forth in the attached form PTO/SB/08B. No inference should be made that the cited references are in fact material, are in fact prior art, or that no better art exists. The cited references are listed in numerical order and not in any order based on their pertinence.

It is requested that the Examiner fully consider the cited references and that they be cited on the front of any patent issuing from this application.

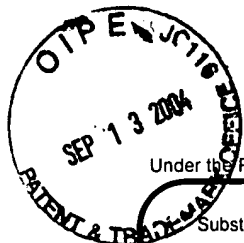
Copies of the cited references are attached.
An early action on the merits is respectfully requested.

Respectfully submitted,

Date: *Sept. 8, 2004*

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Substitute for form 1449B/PTO

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STATEMENT BY APPLICANT**

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Sheet

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of

2

Complete if Known

Application Number	10/822,343
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First Named Inventor	Meng Tao
Group Art Unit	2812
Examiner Name	Not Yet Assigned
Attorney Docket Number	124263-1020

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	1	R.M. TROMP, R.J. HAMERS, and J.E. DEMUTH, Si(001) dimmer structure observed with scanning tunneling microscopy, Phys. Rev. Lett., 1985, 1303, 55	
	2	E. KAXIRAS, Semiconductor-surface restoration by valence-mending absorbates: Application to Si(100):S and Si(100):Se, Physical Review B, 1991, 6324, 43	
	3	H. METZNER, TH. HALN, and J.-H. BREMER, Structure of sulfur-terminated silicon surfaces, Surf. Sci., 1997, 377-371-374, 379,	
	4	J.J. BOLAND, Structure of the H-saturated Si(100) surface, Phys. Rev. Lett., 1990, 3325, 65	
	5	M. TAO and L.P. HUNT, The thermodynamic behavior of the Si-H system and its role in Si-CVD from SiH ₄ , J. Electrochem. Soc., 1992, 806, 139	
	6	J.E. NORTHRUP, Structure of Si(100)H: Dependence on the H chemical potential, Phys. Rev. B, 1991, 1419, 44	
	7	B.S. MEYERSON, F.J. HIMPSEL, and K. J. URAM, Bistable conditions for low-temperature silicon epitaxy, Appl. Phys. Lett., 1990, 1034, 57	
	8	J.W. LYDING, T.-C SHEN, J.S. HUBACEK, J.R. TUCKER, and G.C. ABELN, Nanoscale patterning and oxidation of H-passivated Si(100)-2x1 surfaces with an ultrahigh vacuum scanning tunneling microscope, Appl. Phys. Lett., 1994, 2010, 64	
	9	T.-C SHEN, C. WANG, G.C. ABELN, J.R. TUCKER, J.W. LYDING, PH. AVOURIS, and R.E. WALKUP, Atomic-scale desorption through electronic and vibrational excitation mechanisms, Science, 1995, 1590, 268	
	10	J.W. LYDING, UHV STM nanofabrication: progress, technology spin-offs, and challenges, Proceedings of the IEEE, 1997, 589, 85	
	11	T.-C. SHEN, C. WANG, and J.R. TUCKER, Al nucleation on monohydride and bare Si (001) surfaces: atomic scale patterning, Phys. Rev. Lett., 1997, 1271, 78	

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Sheet 2 of 2

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Gate No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	12	I. LYUBINETSKY, Z. DOHNALEK, W.J. CHOYKE, and J.T. YATES, JR., Cl ₂ dissociation on Si(100)-(2x1): A statistical study by scanning tunneling microscopy, Phys. Rev. B, 1998, 7950, 58	
	13	M. CHANDER, Y.Z. LI, D. RIOUX, and J.H. WEAVER, Patterning of Si(100): Spontaneous etching with Br ₂ , Phys. Rev. Lett., 1993, 4154, 71	
	14	The National Technology Roadmap for Semiconductors, Semiconductor Industry Association, 1997	
	15	A. M. COWLEY, S. M. SZE, Surface States and Barrier Height of Metal-Semiconductor Systems, J. Appl. Phys, 1965, 3212-3220, 36	
	16	J. P. LACHARME, N. BENAZZI, C. A. SEBENNE, Compositional and electronic properties of Si(001)2X1 upon diatomic sulfur interaction, Surf. Sci., 1999, 415-419, 433-435	
	17	A. C. PAPAGEORGOPOULOS, M. KAMARATOS, Adsorption and desorption of Se on Si(100)2X1: surface restoration, Surf. Sci., 1999, 415-419, 433-435	
	18	MICHAELSON, HERBERT B., The work function of the elements and its periodicity, J. Appl. Phys., 1977, 4729-33, 48	

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